



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Application of:  
Eric N. Olson

Serial No.: 10/043,658

Filed: January 9, 2002

For: METHODS FOR PREVENTING  
CARDIAC HYPERTROPHY AND  
HEART FAILURE BY INHIBITION OF  
MEF2 TRANSCRIPTION FACTOR  
INHIBITOR

Group Art Unit: 1632

Examiner: Unknown

Atty. Dkt. No.: MYOG:024USC1/SLH

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37 C.F.R. 1.8

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March 6, 2002

Date

Steven L. Highlander

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
Washington, D.C. 20231

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record.

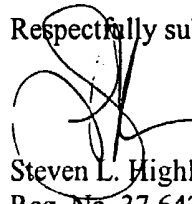
In accordance with 37 C.F.R. §§ 1.97(g), (h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The present Information Disclosure Statement is being filed prior to the receipt of a first Official Action reflecting an examination on the merits, and hence is believed to be timely filed in accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Commissioner is hereby authorized to deduct said fees from Fulbright & Jaworski Deposit Account No.: 50-1212/10200023/SLH.

This application is a continuation application of Serial No. 09/438,075, filed November 10, 1999 and is relied upon for an earlier filing date under 35 U.S.C. § 120. In accordance with Rule 37 C.F.R. § 1.98(d) copies of the listed documents are not enclosed as they have been previously cited by or submitted to the Patent and Trademark Office in prior application Serial No. 09/438,075.

Applicant respectfully requests that the listed documents be made of record in the present case.

Respectfully submitted,



Steven L. Highlander  
Reg. No. 37,642  
Attorney for Applicant

FULBRIGHT & JAWORSKI L.L.P.  
600 Congress Avenue, Suite 2400  
Austin, Texas 78701  
(512) 474-5201

Date: March 6, 2002

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## U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.

## Foreign Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No
9w	B1	WO 9405776 A	03/17/94	PCT			

## Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
9w	C1	Adolph <i>et al.</i> , "Role of myocyte-specific enhancer- binder factor (MEF-2) in transcriptional regulation of the $\alpha$ -cardiac myosin heavy chain gene," <i>J. Biol. Chem.</i> , 268:5349-5352, 1993.
	C2	Bour <i>et al.</i> , "Drosophila MEF2, a transcription factor that is essential for myogenesis," <i>Genes and Dev.</i> , 9:730-741, 1995.
	C3	Brand, "Myocyte enhancer factor 2 (MEF2)," <i>Int J. Biochem. Cell Biol.</i> , 29:1467-1470; 1997.
	C4	Clarke <i>et al.</i> , "Epidermal Growth Factor Induction of the c-jun promoter by a rac pathway," <i>Mol. Cell Biol.</i> , 18:1065-1073, 1998.
	C5	Coso <i>et al.</i> , "Signaling from G protein-coupled receptors to the c-jun promoter involves the MEF2 transcription factor," <i>J. Biol. Chem.</i> , 272:20691-20697, 1997.
	C6	Doud <i>et al.</i> , "Adaptational response in transcription factors during development of myocardial hypertrophy," <i>Mol Cell Cardio</i> , 27:2359-2372, 1995.
	C7	Ebert <i>et al.</i> , "A moloney mlv-rat somatotropin fusion gene produces biologically active somatotropin in a transgenic pig," <i>Molecular Endocrinology</i> , 2:277-283, 1988.
	C8	Edmondson <i>et al.</i> , "MEF2 gene expression marks the cardiac and skeletal muscle lineages during mouse embryogenesis," <i>Development</i> , 120:1251-1263, 1994.
	C9	Gruver <i>et al.</i> , "Targeted developmental overexpression of calmodulin induces proliferative and hypertrophic growth of cardiomyocytes in transgenic mice," <i>Endocrinology</i> , 133:376-388, 1993.

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EXAMINER:

*Joe W. Winters*

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960	C10	Hammer et al., "Genetic engineering of mammalian embryos," <i>J. Animal Science</i> , 63:269-278, 1986.
	C11	Han et al., "Activation of the transcription factor MEF2C by the MAP kinase p38 in inflammation," <i>Nature</i> , 386:296-299, 1997.
	C12	Herzig et al., "Angiotensin II type <sub>1a</sub> receptor gene expression in the heart: AP-1 and GATA-4 participate in the response to pressure overload," <i>Proc. Nat'l. Acad. Sci. USA</i> , 94:7543-7548, 1997.
	C13	Hongo et al., "Effect of stretch on contraction and the Ca <sup>2+</sup> transient in ferret ventricular muscles during hypoxia and acidosis," <i>Am. J. Physiol.</i> , 269:C690-C697, 1995.
	C14	Karns et al., "M-CAT, CarG, and Sp1 elements are required for $\alpha$ -adrenergic induction of the skeletal $\alpha$ -actin promoter during cardiac myocyte hypertrophy," <i>J. Biol. Chem.</i> , 270:410-417, 1995.
	C15	Kato et al., "BMK1/ERK5 regulates serum-induced early gene expression through transcription factor MEF2C," <i>EMBO J.</i> , 16:054-066, 1997.
	C16	Kolodziejczyk et al., "MEF2 is upregulated during cardiac hypertrophy and is required for normal post-natal growth of the myocardium," <i>Curr Biol</i> , 9:1203-1206, 1999.
	C17	Kovacic-Milivojevic et al., "Selective regulation of the atrial natriuretic peptide gene by individual components of the activator protein-1 complex," <i>Endocrinology</i> , 137:1008-1117, 1996.
	C18	Lee et al., "Myocyte-specific enhancer factor 2 and thyroid hormone receptor associate and synergistically activate the $\alpha$ -cardiac myosin heavy-chain gene," <i>Mol. Cell Biol.</i> , 17:2745-2755, 1997.
	C19	Leite et al., "Regulation of ANP secretion by endothelin-1 in cultured atrial myocytes: desensitization and receptor subtype," <i>Am. J. Physiol.</i> , 267:H2193-2203, 1994.
	C20	Lilly et al., "Requirement of MADS domain transcription factor D-MEF2 for muscle formation in <i>Drosophila</i> ," <i>Science</i> , 267:688-693, 1995.
	C21	Lin et al., "Control of cardiac morphogenesis and myogenesis by the myogenic transcription factor MEF2C," <i>Science</i> , 276:1404-1407, 1997.

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96	C22	Liu <i>et al.</i> , "Cyclosporin A-sensitive induction of the Epstein-Barr virus lytic switch is mediated via a novel pathway involving a MEF2 family member," <i>EMBO J.</i> , 16:143-153, 1997.
	C23	Martin <i>et al.</i> , "Myocyte enhancer factor (MEF) 2C: A tissue-restricted member of the MEF-2 family of transcription factors," <i>Proc. Nat'l. Acad. Sci. USA</i> , 90:5282-5286, 1993.
	C24	Molkentin and Olson, "Combinatorial control of muscle development by bHLH and MADS-box transcription factors," <i>Proc. Nat'l. Acad. Sci. USA</i> , 93:9366-9373, 1996.
	C25	Molkentin and Olson, GATA4: a novel transcriptional regulator of cardiac hypertrophy?," <i>Circulation</i> , 96:3833-3835, 1997.
	C26	Molkentin <i>et al.</i> , "Cooperative activation of muscle gene expression by MEF2 and myogenic bHLH proteins," <i>Cell</i> , 83:1125-1136, 1995.
	C27	Molkentin <i>et al.</i> , "MEF2B is a potent transactivator expressed in early myogenic lineages," <i>Mol. Cell. Biol.</i> , 16:3814-3824, 1996.
	C28	Molkentin <i>et al.</i> , "Mutational analysis of the DNA binding, dimerization, and transcriptional activation of MEF2C," <i>Mol. Cell. Biol.</i> , 16:2627-2636, 1996.
	C29	Molkentin <i>et al.</i> , "Phosphorylation of the MADS-box transcription factor MEF2C enhances its DNA binding activity," <i>J. Biol. Chem.</i> , 271:17199-17204, 1996.
	C30	Molkentin <i>et al.</i> , "Requirement of the GATA4 Transcription factor for heart tube formation and ventral morphogenesis," <i>Genes and Dev.</i> , 11:1061-1072, 1997.
	C31	Molkentin <i>et al.</i> , "Transcription factor GATA-4 regulates cardiac muscle-specific expression of the $\alpha$ -myosin heavy-chain gene," <i>Mol. Cell. Biol.</i> , 14:4947-4957, 1994.
	C32	Mullins <i>et al.</i> , "Perspectives series: molecular medicine in genetically engineered animals," <i>J. Clinical Investigation</i> , 97:1557-1560, 1996.
	C33	Navankasattusas <i>et al.</i> , "A ubiquitous factor (HF-1a) and a distinct muscle factor (HF-1b/MEF-2) form an e-box-independent pathway for cardiac muscle gene expression," <i>Mol. and Cell Biol.</i> , 12:1469-1479, 1992.
	C34	Olson <i>et al.</i> , "Regulation of muscle differentiation by the MEF2 family of MADS box transcription factors," <i>Developmental Biology</i> , 172:2-14, 1995.
	C35	Ostrove <i>et al.</i> , "Inhibition of adenovirus-transformed cell oncogenicity by adeno-associated virus," <i>Virology</i> , 113:521-533, 1981.

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70	C36	Qin et al., "Elements regulating cardiomyocyte expression of the human sarcomeric mitochondrial creatine kinase gene in transgenic mice," <i>J. Biol. Chem.</i> , 272:25210-25216, 1997.
	C37	Ross et al., "An hf-1a/hf-1b/mef-2 combinatorial element confers cardiac ventricular specificity and establishes an anterior-posterior gradient of expression," <i>Development</i> , 122:1799-1809, 1996.
	C38	Sadoshima and Izumo, "Signal transduction pathways of angiotensin II-induced c-fos gene expression in cardiac myocytes in vitro," <i>Circ. Res.</i> , 73:424-438, 1993.
	C39	Sadoshima and Izumo, "The cellular and molecular response of cardiac myocytes to mechanical stress," <i>Ann. Rev. Physiol.</i> , 59:551-571, 1997.
	C40	Sadoshima et al., "Autocrine release of angiotensin II mediates stretch-induced hypertrophy of cardiac myocytes in vitro," <i>Cell</i> , 75:977-984, 1993.
	C41	Thai et al., "Myocyte enhancer factor 2 (MEF2)-binding site is required for glut4 gene expression in transgenic mice," <i>J. Biol. Chem.</i> , 273:14285-14292, 1998.
	C42	Wall et al., "Transgenic dairy cattle: genetic engineering on a large scale," <i>J. Dairy Science</i> , 80:2213-2224, 1997.
	C43	Wang et al., "Identification of cis elements in the cardiac troponin t gene conferring specific expression in cardiac muscle of transgenic mice," <i>Circulation Res.</i> , 86:478-484, 2000.
	C44	Woronicz et al., "Regulation of the Nur77 orphan steroid receptor in activation-induced apoptosis," <i>Mol. Cell. Biol.</i> 6364-6376, 1995.
	C45	Zou et al., "Protein Kinase C, but not tyrosine kinases or ras, plays a critical role in angiotensin ii-induced activation of Raf-1 Kinase and extracellular signal-related protein kinases in cardiac myocytes," <i>J. Biol. Chem.</i> , 271:33592-33597, 1996.

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